

WHAT IS CLAIMED IS:

1. A method for lanthionizing keratin fibers to achieve relaxation of said keratin fibers comprising:
 - (i) applying a pretreatment composition to said keratin fibers, wherein said pretreatment composition comprises at least one reducing agent chosen from thiols, sulfites, and derivatives thereof for a sufficient period of time to reduce at least one keratin bond in said keratin fibers;
 - (ii) rinsing said keratin fibers;
 - (iii) generating hydroxide ions in at least one solvent, wherein said step of generating comprises including at least one hydroxide compound in said at least one solvent;
 - (iv) applying a composition comprising said generated hydroxide ions to said keratin fibers for a sufficient period of time to lanthionize at least one of said keratin fibers;
 - (v) heating said keratin fibers; and
 - (vi) terminating said lanthionization when said keratin fibers are relaxed.
2. A method according to claim 1, further comprising shampooing said keratin fibers subsequent to said heating.
3. A method according to claim 2, further comprising rinsing said keratin fibers subsequent to said shampooing.
4. A method according to claim 2, further comprising rinsing said keratin fibers prior to said shampooing.
5. A method according to claim 1, wherein said at least one hydroxide compound is chosen from alkali metal hydroxides, alkaline earth metal hydroxides,

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transition metal hydroxides, lanthanide metal hydroxides, actinide metal hydroxides, Group III hydroxides, Group IV hydroxides, Group V hydroxides, Group VI hydroxides, organic hydroxides, and compounds comprising at least one hydroxide substituent which is at least partially hydrolyzable.

6. A method according to claim 5, wherein said at least one hydroxide compound is chosen from sodium hydroxide, lithium hydroxide, and potassium hydroxide.

7. A method according to claim 6, wherein said at least one hydroxide compound is sodium hydroxide.

8. A method according to claim 1, wherein the at least one hydroxide compound is present in an amount ranging from 0.01% to 2.5% by weight, relative to the total weight of said composition.

9. A method according to claim 8, wherein the at least one hydroxide compound is present in an amount ranging from 0.1% to 1% by weight relative to the total weight of said composition.

10. A method according to claim 1, wherein said thiols group are chosen from thioglycolates, thiolactates, thiolglycerols, thiocarboxylic acids, thioesters, thioamides, alkyl mercaptans, and cysteine.

11. A method according to claim 10, wherein said at least one reducing agent is chosen from thioglycolates.

12. A method according to claim 11, wherein said thioglycolates are monoethanolamine thioglycolate.

13. A method according to claim 1, wherein said sulfites are chosen from hydrogen sulfite, organic sulfites and inorganic sulfites.

14. A method according to claim 1, wherein said at least one reducing agent is present in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

15. A method according to claim 14, wherein said at least one reducing agent is present in an amount ranging from 0.5% to 2.5% by weight relative to the total weight of the composition.

16. A method according to claim 1, wherein said at least one solvent is chosen from DMSO and water.

17. A method according to claim 1, wherein said composition further comprises at least one additive chosen from dyes, anionic surfactants, cationic surfactants, nonionic surfactants, amphoteric surfactants, fragrances, silicones, silicone derivatives, screening agents, chelating agents, preserving agents, proteins, vitamins, plant oils, mineral oils and synthetic oils.

18. A method according to claim 1, wherein said composition is in a form chosen from an oil-in-water emulsion, a water-in-oil emulsion, a dispersion, a suspension, a cream, a foam, a gel, a spray, a powder and a liquid.

19. A method according to claim 1, wherein said keratin fibers are hair.

20. A method for re-waving keratin fibers comprising:

(i) applying a pretreatment composition to said keratin fibers comprising at least one reducing agent chosen from thiols, sulfites, and derivatives thereof to

keratin fibers for a sufficient period of time to reduce at least one keratin bond in said keratin fibers;

(ii) rinsing said keratin fibers;

(iii) generating hydroxide ions in at least one solvent, wherein said step of generating comprises including at least one hydroxide compound in said at least one solvent;

(iv) applying a composition comprising said generated hydroxide ions to said keratin fibers for a sufficient period of time to lanthionize at least one of said keratin fibers;

(v) heating said keratin fibers;

(vi) terminating said lanthionization, and

(vii) applying a permanent waving composition to said keratin fibers for a sufficient period of time to permanently wave at least one of said keratin fibers.

21. A method according to claim 20, further comprising shampooing said keratin fibers subsequent to said heating.

22. A method according to claim 21, further comprising rinsing said keratin fibers subsequent to said shampooing.

23. A method according to claim 21, further comprising rinsing said keratin fibers prior to said shampooing.

24. A method according to claim 20, further comprising rolling said lanthionized keratin fibers onto at least one curling rod prior to or subsequent to said application of said permanent waving composition.

25. A method according to claim 24, further comprising rinsing said rolled

keratin fibers after a sufficient period of time to permanently wave said rolled keratin fibers.

26. A method according to claim 20, wherein said at least one hydroxide compound is chosen from alkali metal hydroxides, alkaline earth metal hydroxides, transition metal hydroxides, lanthanide metal hydroxides, actinide metal hydroxides, Group III hydroxides, Group IV hydroxides, Group V hydroxides, Group VI hydroxides, organic hydroxides, and compounds comprising at least one hydroxide substituent which is at least partially hydrolyzable.

27. A method according to claim 26, wherein said at least one hydroxide compound is chosen from sodium hydroxide, lithium hydroxide, and potassium hydroxide.

28. A method according to claim 27, wherein said at least one hydroxide compound is sodium hydroxide.

29. A method according to claim 20, wherein the at least one hydroxide compound is present in an amount ranging from 0.01 to 2.5% by weight, relative to the total weight of said composition.

30. A method according to claim 29, wherein the at least one hydroxide compound is present in an amount ranging from 0.1% to 1% by weight relative to the total weight of said composition.

31. A method according to claim 20, wherein said thiols group are chosen from thioglycolates, thiolactates, thiolglycerols, thiocarboxylic acids, thioesters, thioamides, alkyl mercaptans, and cysteine.

32. A method according to claim 31, wherein said at least one reducing agent is chosen from thioglycolates.

33. A method according to claim 32, wherein said thioglycolates are monoethanolamine thioglycolate.

34. A method according to claim 20, wherein said sulfites are chosen from hydrogen sulfite, organic sulfites and inorganic sulfites.

35. A method according to claim 20, wherein said at least one reducing agent is present in an amount ranging from 0.1% to 5% by weight relative to the total weight of the composition.

36. A method according to claim 35, wherein said at least one reducing agent is present in an amount ranging from 0.5% to 2.5% by weight relative to the total weight of the composition.

37. A method according to claim 20, wherein said at least one solvent is chosen from DMSO and water.

38. A method according to claim 20, wherein said composition further comprises at least one additive chosen from dyes, anionic surfactants, cationic surfactants, nonionic surfactants, amphoteric surfactants, fragrances, silicones, silicone derivatives, screening agents, preserving agents, proteins, vitamins, plant oils, mineral oils and synthetic oils.

39. A method according to claim 20, wherein said composition is in a form chosen from an oil-in-water emulsion, a water-in-oil emulsion, a dispersion, a suspension, a cream, a foam, a gel, a spray, a powder and a liquid.

40. A method according to claim 20, wherein said keratin fibers are hair.

41. A multicompartment kit for re-waving keratin fibers comprising:

(a) a first compartment comprising a first composition,

(b) a second compartment comprising a second composition, and

(c) a third compartment comprising a third composition,

wherein said first composition comprises at least one hydroxide compound;

wherein said second composition comprises at least one reducing agent

chosen from thiols, sulfites, and derivatives thereof, and

wherein said third composition is a permanent waving composition.

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